

REMARKS/ARGUMENTS

Applicants respond herein to the Office Action of April 2, 2007.

Claims 1-18 are pending in the Application. Claims 1-5, 7 and 12-18 were rejected in the Office Action. Applicants amended Claims 1-2, 4-8 and 13-16. Claims 6 and 8-11 were indicated as allowable if rewritten in independent form. Applicants thank the Examiner to this early indication of the allowable subject matter.

Response to Claim Rejections

Claims 1-3, 5 and 13 were rejected in the Office Action under 35 U.S.C. 102(b) as being anticipated by Cobbs (U.S. Patent No. 3,525,393). Claims 1-4 and 14 were rejected in the Office Action under 35 U.S.C. 102(e) as being anticipated by Bousche (U.S. Patent No. 7,059,410). Further, Claims 1-3, 7, 12, 17 and 18 were rejected in the Office Action under 35 U.S.C. 102(e) as being anticipated by Hester (U.S. Patent No. 6,615,926). Claims 1-3, 13-15 and 17 were rejected in the Office Action under 35 U.S.C. 102(a) as being anticipated by the article “Innovations Key Reeled Pipe-in-Pipe Flowline.” Finally, Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over the article “Innovations Key Reeled Pipe-in-Pipe Flowline” in view of Bousche.

Claim 1 recites a seal assembly for sealing an annular space between an inner and an outer pipe in a double- walled subsea pipeline. Under normal operating conditions, the seal assembly is in a non-sealing position. In response to the entry of liquid into the annular space, the seal assembly is actuatable from the non-sealing position to a sealing position.

Cobbs discloses a packer 28 driven by a piston member 22 for packing a space between a pipeline and a well borehole within which the pipeline is located. Therefore, Cobbs does not disclose a seal assembly for sealing an annular space between an inner and an outer pipe in a double- walled subsea pipeline. Further, under the normal operating conditions, the fluid flows through a valve 38 positioned within the pipeline. When it is determined to set a packer, plug 46 is inserted into the pipeline casing at the surface and is pushed downwardly by the flow of fluid. As plug 46 stops the flow of fluid through valve 38, fluid under pressure flows through side

openings 14 of the pipeline into a cylinder cavity 20. Cavity 20, formed as part of the pipeline, surrounds the pipeline and has the piston member 22 as its bottom portion. As cavity 20 fills with fluid, the piston member is driven downwardly, and the packer attached to the piston expands outwardly against the walls of the bore. *See, Col. 3, lines 36-62.* Therefore, the fluid in Cobbs does not enter the annular space between the pipeline and the walls of the bore. Moreover, the packer disclosed in Cobbs is not actuatable from a non-sealing position to a sealing position in response to the entry of fluid into the annular space but, instead, in response to the passage of the plug through the inner pipeline and the subsequent passage of fluid through the inner pipeline to create a pressure differential across the valve. Therefore, Cobbs does not disclose or suggest the above limitations of Claim 1.

Bousche discloses a system for reducing longitudinal flow of fluids through an annular space formed between a permeable well pipeline and the well walls. The pipeline is provided with sealing rings 6 placed around the outer perimeter of the pipeline. Sealing rings 6 restrict the flow of oil and/or gas around the pipeline, forcing such oil and gas to flow in a substantially radial direction around the outer surface of the pipeline, through the slots provided in the pipeline and into the interior of the pipeline. To protect sealing rings 6 during installation of the pipeline into the well, the free ends of the sealing rings are wrapped around the pipeline by tape. The tape can be made of a material which dissolves downhole or loosens its bonding ability so that the tape releases the free ends of the sealing rings that expand against the well walls when the pipeline reaches its position in the downhole. Thus, the system disclosed in Bousche does not provide a seal assembly for sealing an annular space between an inner and an outer pipe in a double-walled subsea pipeline, as required by Claim 1. Moreover, once the seal assembly disclosed in Bousche is set in its place in the downhole, it is arranged in its sealing position, i.e., with free ends of the sealing rings bearing against the walls of the well. Therefore, Bousche does not disclose a sealing assembly which is under normal operating conditions in a non-sealing position and which is actuatable from this non-sealing position to a sealing position in response to the entry of liquid into the annular space.

Hester discloses a restrictor for reducing downward flowing casing annulus well fluid. The embodiment shown in Fig. 7 (and cited by the Examiner in the Office Action) shows a

blocking member 61 located between the input tube 27 of the pump and a casing 11. Blocking member 61 includes a valve 65 positioned within a flow passage 63 extending through the blocking member. While the disclosure of Hester is clear that valve 65 “constricts the flow rate of downward flowing well fluid,” (col. 4, lines 42-43) nowhere does Hester disclose or suggest that valve 65 seals the flow passage 63 and prevents the flow of fluid past the valve. Therefore, Hester merely discloses an assembly operable between a normal flow and a restricted flow of fluid in response to pressure differential across the valve and does not disclose a seal for sealing an annular space between an inner and an outer pipes that is under normal operating conditions is in a non-sealing position and that is actuatable from this non-sealing position to a sealing position in response to the entry of liquid into the annular space.

The article “Innovations Key Reeled Pipe-in-Pipe Flowline” published in the Oil & Gas Journal 2001, Volume 99, discloses a waterstop seal which prevents passage of gas through the seal assembly during both normal use of the pipeline and during flooding of the pipeline. Unlike the seal assembly claimed in Claim 1, in the normal operational state (i.e., the unstressed state), the seal disclosed in the article remains in contact with the annular walls of the pipeline and does not permit passage of fluid past the seal. Therefore, the limitation of Claim 1 requiring that under normal operating conditions the sealing assembly is in a non-sealing position, is not met by the above article.

Accordingly, the limitations of Claim 1, discussed above, are not disclosed in the cited prior art.

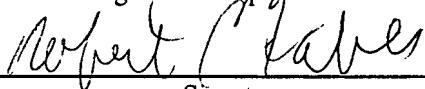
Claim 1 is allowable over the prior art of record. Moreover, Claims 2-18 depend directly or indirectly from Claim 1. Therefore, Claims 2-18 are allowable at least for the same reasons as

Claim 1 and, further, on their own merits. Favorable reconsideration of the rejections and allowance of all pending claims is respectfully requested.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on July 2, 2007:

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Name of applicant, assignee or
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Signature

July 2, 2007

Date of Signature

Respectfully submitted,



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